

National Bureau of Standarus Library, E-01 Admin. Bldg.

3 1970 AUG

NBS TECHNICAL NOTE 498-1

Bibliographies Fabric Flammability

Interior Furnishings

U.S. DEPARTMENT COMMERCE

National Bureau **Standards**

NATIONAL BUREAU OF STANDARDS

The National Bureau of Standards was established by an act of Congress March 3, 1901. Today, in addition to serving as the Nation's central measurement laboratory, the Bureau is a principal focal point in the Federal Government for assuring maximum application of the physical and engineering sciences to the advancement of technology in industry and commerce. To this end the Bureau conducts research and provides central national services in four broad program areas. These are: (1) basic measurements and standards, (2) materials measurements and standards, (3) technological measurements and standards, and (4) transfer of technology.

The Bureau comprises the Institute for Basic Standards, the Institute for Materials Research, the Institute for Applied Technology, the Center for Radiation Research, the Center for Computer Sciences and Technology, and the Office for Information Programs.

THE INSTITUTE FOR BASIC STANDARDS provides the central basis within the United States of a complete and consistent system of physical measurement; coordinates that system with measurement systems of other nations; and furnishes essential services leading to accurate and uniform physical measurements throughout the Nation's scientific community, industry, and commerce. The Institute consists of an Office of Measurement Services and the following technical divisions:

Applied Mathematics—Electricity—Metrology—Mechanics—Heat—Atomic and Molecular Physics—Radio Physics ²—Radio Engineering ²—Time and Frequency ²—Astrophysics ²—Cryogenics.²

THE INSTITUTE FOR MATERIALS RESEARCH conducts materials research leading to improved methods of measurement standards, and data on the properties of well-characterized materials needed by industry, commerce, educational institutions, and Government; develops, produces, and distributes standard reference materials; relates the physical and chemical properties of materials to their behavior and their interaction with their environments; and provides advisory and research services to other Government agencies. The Institute consists of an Office of Standard Reference Materials and the following divisions:

Analytical Chemistry—Polymers—Metallurgy—Inorganic Materials—Physical Chemistry. THE INSTITUTE FOR APPLIED TECHNOLOGY provides technical services to promote the use of available technology and to facilitate technological innovation in industry and Government; cooperates with public and private organizations in the development of technological standards, and test methodologies; and provides advisory and research services for Federal, state, and local government agencies. The Institute consists of the following technical divisions and offices:

Engineering Standards—Weights and Measures — Invention and Innovation — Vehicle Systems Research—Product Evaluation—Building Research—Instrument Shops—Measurement Engineering—Electronic Technology—Technical Analysis.

THE CENTER FOR RADIATION RESEARCH engages in research, measurement, and application of radiation to the solution of Bureau mission problems and the problems of other agencies and institutions. The Center consists of the following divisions:

Reactor Radiation—Linac Radiation—Nuclear Radiation—Applied Radiation.

THE CENTER FOR COMPUTER SCIENCES AND TECHNOLOGY conducts research and provides technical services designed to aid Government agencies in the selection, acquisition, and effective use of automatic data processing equipment; and serves as the principal focus for the development of Federal standards for automatic data processing equipment, techniques, and computer languages. The Center consists of the following offices and divisions:

Information Processing Standards—Computer Information — Computer Services — Systems Development—Information Processing Technology.

THE OFFICE FOR INFORMATION PROGRAMS promotes optimum dissemination and accessibility of scientific information generated within NBS and other agencies of the Federal Government; promotes the development of the National Standard Reference Data System and a system of information analysis centers dealing with the broader aspects of the National Measurement System, and provides appropriate services to ensure that the NBS staff has optimum accessibility to the scientific information of the world. The Office consists of the following organizational units:

Office of Standard Reference Data—Clearinghouse for Federal Scientific and Technical Information ³—Office of Technical Information and Publications—Library—Office of Public Information—Office of International Relations.

² Located at Boulder, Colorado 80302.

¹ Headquarters and Laboratories at Gaithersburg, Maryland, unless otherwise noted; mailing address Washington, D.C. 20234.

³ Located at 5285 Port Royal Road, Springfield, Virginia 22151.

UNITED STATES DEPARTMENT OF COMMERCE

Maurice H. Stans, Secretary

NATIONAL BUREAU OF STANDARDS . Lewis M. Branscomb, Director



Nat. Bur. Stand. (U.S.), Tech. Note 498-1, 24 pages (June 1970) CODEN: NBTNA

Bibliographies on Fabric Flammability

Part 4. Interior Furnishings

Sidney H. Greenfeld, Elizabeth R. Warner, and Hilda W. Reinhart

Office of Flammable Fabrics Institute for Applied Technology National Bureau of Standards Washington, D.C. 20234



NBS Technical Notes are designed to supplement the Bureau's regular publications program. They provide a means for making available scientific data that are of transient or limited interest. Technical Notes may be listed or referred to in the open literature.

Contents

	Page
Part 4. Interior Furnishings	1
Author Index	11
Key Word Index	13

Fabric Flammability Bibliographies

Preface

The Secretary of Commerce, under the 1967 amendment to the Flammable Fabrics Act, was authorized to conduct research into the flammability of products, fabrics and materials, conduct feasibility studies on reduction of flammability, develop flammability test methods and offer appropriate training in the use of flammability test methods. These responsibilities were delegated to the National Bureau of Standards.

In order to facilitate these four areas of investigation, it is necessary to have a thorough knowledge of what has been accomplished and what is being done by others in the field. Therefore, as part of the program of the Office of Flammable Fabrics, a series of bibliographies is being developed in cooperation with the staff of the Library of the National Bureau of Standards.

Each bibliography deals with a specific facet of the fabric flammability problem, such as flammability of wearing apparel, flammability of carpets and rugs, smoke and noxious products of combustion, *etc*. These bibliographies are working documents and will be updated and reissued as warranted. All the items listed will be on file at an Information Center at the National Bureau of Standards and available for inspection by those interested. However, copyright restrictions prevent the distribution of copies of these documents.

Citations for these bibliographies have been collected through a review of abstracting and indexing journals, such as World Textile Abstracts, Chemical Abstracts, Applied Science and Technology Index, Engineering Index, and Business Periodicals Index for the period 1960 through 1969, as well as from various footnotes and bibliographies. The elements of each citation will vary with the type of publication cited. Initially, they will include: author or issuing agency; title of article or paper; title of journal; title of book, chapter and chapter number; volume number; issue number; edition other than first; publisher, place and date of publication, inclusive pages; and number of references given. Later versions will include abstracts.

Arrangement is alphabetical by surname of the first author or by title if there is no author. When readily available the AD, PB, NASA or STAR numbers are supplied. Author and key word indexes are provided.

The following symbols signify certain types of citations:

- *-a publication that has not been seen by the compilers of this bibliography.
- **-a short item such as a news note, or subsection of an article.
- *** a photocopy or reprint for which the citation has not been verified in all details.

FABRIC FLAMMABILITY BIBLIOGRAPHIES

The literature on the flammability of fabrics is highly fragmented and difficult to cover completely; consequently, some items in the literature may have been omitted. It would be greatly appreciated if those using the bibliographies would inform the Office of Flammable Fabrics, National Bureau of Standards, Washington, D.C. 20234 of any items that are not included of which they have knowledge.

Acknowledgement

The authors wish to express their appreciation for the assistance provided by many people at the National Bureau of Standards in the preparation of these bibliographies. Special thanks are extended to Mrs. Mary E. Roger, for typing the many citations on magnetic tape, and to Mr. Rubin Wagner and Mrs. Sharon F. Holdridge, Computer-Assisted Printing Section, for preparing the material for computer printing.

Abstract

As recognition of the urgency of the flammable fabrics problem, the Flammable Fabrics Act of 1953 was amended in 1967 to include all items of wearing apparel and interior furnishings. In order to facilitate research and assist in the development of new standards and test methods in these areas, a series of bibliographies is being prepared by the NBS Office of Flammable Fabrics in cooperation with the NBS Library. The first three bibliographies, on wearing apparel, fabrics used on beds, and carpets and rugs, were published in NBS Technical Note 498. This one is on interior furnishings. It includes all of the references on bed fabrics and carpets and rugs that appeared in TN 498, along with those on upholstered furniture, draperies, curtains, and materials that are used in interior furnishings.

Key words: Bedding; beds; blankets; carpets; curtains; drapes; fabrics; fibers; fire; flames; flammability; flammable; floor coverings; furnishings; furniture; interior furnishings; mattresses; pads; pillow cases; pillows; plastics; rugs; sheets; springs; upholstered furniture; upholstery.

Part 4. Interior Furnishings

Introduction

The December 1967 amendment to the Flammable Fabrics Act extended the coverage of that Act to include interior furnishings containing fabrics and related materials. This extension served to recognize the fact that interior furnishings may be involved in a significantly large number of fires each year that lead to death, injury or significant property loss. The Secretary of Commerce has chosen to examine various items of interior furnishings separately, rather than collectively, because of the large variations in their involvement in fires. He has found that unreasonable fire risks are involved in the use of carpets and rugs and may be involved in the use of bedding. Separate bibliographies for these two categories have been published in NBS Technical Note 498.

However, there is a large interest in the entire field of flammability of interior furnishings and, consequently, this bibliography is being published. It contains over 245 citations relating to interior furnishings. Separate bibliographies will appear later on test methods, smoke and other combustion products, fire and flame retardants and other specific areas currently within the coverage of the 1967 amendment to the Flammable Fabrics Act.



- ABERNETHY, N. W., Rovana; Dow's New Saran Micro-Tape, Modern Textiles Magazine 41, No. 5 (May 1960), 99-102.
- About Mattresses, Fire Journal 59, No. 2 (Mar. 1965), 85.
- Act to Amend the Flammable Fabrics Act, to Increase the Protection Afforded Consumers Against Injurious Flammable Fabrics, U.S. Statutes at Large, 81 (1967); U.S. Code (1964) Supplement 4, January 4, 1965-January 2, 1969, Title 15, Sections 1191-1204.
- American Society for Testing and Materials, D777-46 (Reapproved 1965), Standard Method of Test for Flammability of Treated Paper and Paperboard, in Part 15, Book of ASTM Standards 1969, 211-212 (ASTM, Philadelphia, Pa., 1969).
- Are Flame Retardant Fabrics Acceptable?, *Textile Industries* 132, No. 4 (Apr. 1968), 159, 162, 171-172, 175.
- ARLEDTER, H. F., KNOWLES, S. E., AND DRUCK, J. U., Flame-Retardant Papers and Laminates, *Tappi* 47, No. 8 (Aug. 1964), 48A, 52A, 59A, 62A, 68A, 72A.
- ARTHUR, J. B., Polyester in Carpets, *Textile Industries* 131 (Sept. 1967), 88-B, 88-C, 94-95.
- BABCOCK, C. I., A Place for Old Folks to Live, National Fire Protection Association. *Quarterly* 51, No. 1 (July 1957), 35-49.
- Baby Blankets: A Minority Report, Consumer Reports 29 (May 1964), 215-216.
- BARBER, R. P., A Study of Fire Retardancy of Polyester/Cotton Sheeting, American Dyestuff Reporter 57, No. 10 (May 6, 1968), 373-377, 4 refs.
- BEST-GORDON, H. W., Modifications in Viscose-Type Fibres and Fabrics, Textile Institute and Industry 7, No. 6 (June 1969), 162-164.
- Big Picture in Home Furnishing Fabrics 1961, Modern Textiles Magazine 42, No. 1 (Jan. 1961), 22, 47-50.
- Blankets**, Consumer Bulletin-Annual 1968, 42 (Sept. 1967), 214.
- Blankets**, Consumer Bulletin-Annual 1969, 43 (Sept. 1968), 47-48.
- Blankets, Consumer Bulletin-Annual 1970, 44 (Sept. 1969), 138-139.
- Blankets, Consumer Reports 19, No. 11 (Nov. 1954), 533-535.
- Blankets, Consumer Reports 29, No. 10 (Oct. 1964), 472-475.

- Blankets, Consumer Reports 31, No. 12 (Dec. 1966), 28-29.
- Blankets: Special Fibers vs. Wool, Consumer Reports 23, No. 2 (Feb. 1958), 68-73.
- Blankets and Other Nonclothing Fabrics. Includes correspondence from: SEGAL, L., *Fire Journal* **62**, No. 3 (May 1968), 109.
- BRISSETTE, R. S., The Use of Synthetic Modacrylic Fibers, based on a paper presented at the Conference on Burns and Flame-Retardant Fabrics, held at the New York Academy of Medicine, December 2-3, 1966, New York Academy of Medicine. Bulletin 43, No. 8 (Aug. 1967), 694-698.
- British Standards Institution, B.S. 2963:1958, Tests for the Flammability of Fabrics, includes Amendment No. 1, PD3563 (Nov. 1959), and Amendment Slip No. 2, AMD 128 (Nov. 1968), 13 pages.
- British Standards Institution, B.S. 3424: 1961, Methods of Test for Coated Fabrics, 60 pages.
- British Standards Institution, B.S. 3424: 1961, *Methods of Test for Coated Fabrics*, Addendum No. 1, PD6227, 6 pages (Aug. 1967).
- British Standards Institution, B.S. 3456: Section A4: 1963, *Electrically-Heated Blankets*, 37 pages.
- British Standards Institution, B.S. 3456: Section A4: 1963, Electrically-Heated Blankets, Amendment No. 1, PD5162, 2 pages (20 Feb. 1964).
- British Standards Institution, B.S. 3456: Section A4: 1963, Electrically-Heated Blankets, Amendment No. 2, PD5545, 6 pages (21 June 1965).
- British Standards Institution, B.S. 3456: Section A4: 1963, Electrically-Heated Blankets, Amendment No. 3, PD6348, 10 pages (11 Mar. 1968).
- British Vita's Fabrics and Fibres, Rubber and Plastics Age 50, No. 9 (Sept. 1969), 645.
- BROWN, C. E., Effects of Bonding and Construction of Fabric Flammability, *Textile Chemist and Colorist* 1, No. 24 (Nov. 19, 1969), 530-533, 5 refs.
- BUCK, G. S., Potential For Cotton Batting Products, in Flame Retardant Cotton Batting Workshop, Proceedings, held at New Orleans, Nov. 15, 1968, U.S. Agricultural Research Service, ARS 72-72, 7-8 (Oct. 1969).
- BURNETT, R., Manmade Fibers, Modern Textiles 50, No. 12 (Dec. 1969), 43-44.
- Burns and Flame Retardant Fabrics, Conference on, held at the New York Academy of Medicine,

- Dec. 2-3, 1966. Selected papers presented at the conference are listed under the authors: R. S. BRISSETTE; J. F. FERGER; AND H. A. FREEDMAN.
- BYERS, D. J., Flameproofing Adds to Linen Launderability, *Modern Hospital* 100, No. 5 (May 1963), 154, 156.
- CAMPBELL, J., Eastman's Progress From Acetate to Polyester, *Modern Textiles Magazine* 42, No. 10 (Oct. 1961), 21-22, 64, 75.
- CAMPBELL, J., Nylon's Younger Sisters, Modern Textiles Magazine 45, No. 1 (Jan. 1964), 56-58, 60-62, 127.
- CAROSELLI, R. F., Applications of Glass Textile Products, in Man-Made Fibers: Science and Technology, edited by H. F. Mark, S. M. Atlas, E. Cernia, 3, 440-442 (Interscience, New York, 1968).
- Carpet Backing**, Textile Industries 131 (Nov. 1967), 150.
- Carpet Flammability, Consumer Reports 25, No. 10 (Oct. 1960), 538-540.
- Carpet Flammability: Improvements Afoot, Consumer Reports 34, No. 8 (Aug. 1969), 427.
- Carpeting; Have Man-Made Fibres Replaced Wool?, Consumers Digest 4, No. 1 (Jan./Feb. 1965), 9-14.
- Carpets and Rugs, Consumer Bulletin-Annual 1970, 44 (Sept. 1969), 141-142.
- CHRISTENSEN, G., LOHSE, U., AND MALMSTEDT, K., Full Scale Fire Tests, Copenhagen. Statens Byggeforskningsinstitut, *SBI-Rapport* 59, 56 pages (Teknisk Forlag, Copenhagen, 1967).
- CHURCH, J., Flammability Hazards of Fabrics, Chemical & Engineering News 31, No. 4 (Jan. 26, 1953), 325-329, 5 refs.
- CHYNOWETH, G., Reactive Fire Retardant Textile Finish, in Flame Retardant Cotton Batting Workshop, Proceedings, held at New Orleans, Nov. 15, 1968, U.S. Agricultural Research Service, ARS 72-72, 58-59 (Oct. 1969).
- Conference on Burns and Flame Retardant Fabrics, held at the New York Academy of Medicine, Dec. 2-3, 1966. Selected papers presented at the conference are listed under the authors: R. S. BRISSETTE; J. F. FERGER; AND H. A. FREEDMAN.
- Curtains and Draperies, Consumer Bulletin-Annual 1968, 42 (Sept. 1967), 216.
- Curtains and Draperies, Consumer Bulletin-Annual 1969, 43 (Sept. 1968), 44-45.
- Curtains and Draperies, Consumer Bulletin-Annual 1970, 44 (Sept. 1969), 137.

- Cushion Vinyl Floor Coverings, Consumer Bulletin 52 (Feb. 1969), 7-9.
- DIAMOND, D., The Use of Textiles in Aircraft Interiors, *Textile Weekly* 69 (1), No. 2130 (7 Feb. 1969), 154-158.
- DRAKE, G. L., Theories of Flame Retardancy and Flame-Retardant Upholstery Fabrics and Mattress Ticking, in Flame Retardant Cotton Batting Workshop, Proceedings, held at New Orleans, Nov. 15, 1968, U.S. Agricultural Research Service, ARS 72-72, 25-28 (Oct. 1969), 22 refs.
- Du Pont Introduces Modified Neoprene Foam, Chemical & Engineering News 46, No. 20 (May 6, 1968), 46-48.
- Duplex Fire Trap, Fire Journal 59, No. 1 (Jan. 1965), 48-49.
- Eastman Chemical Products, Inc., Evaluation of Flame Resistant Products Made With Eastman Verel Modacrylic Fiber, 19 pages (Eastman Chemical Products, Inc., Kingsport, Tennessee, no date).
- EGERTON, G., Markets and End Uses, Part Three of A New Growth Area in Textiles: Paper Yarns and Fabrics, Modern Textiles Magazine 43, No. 8 (Aug. 1962), 36-38, 40.
- Electric Blanket Fires are Investigated**, Fire 55, No. 693 (Mar. 1963), 562.
- Electric Blankets, Consumer Bulletin-Annual 1970, 44 (Sept. 1969), 139-140.
- Electric Blankets, Consumer Bulletin 52, No. 1 (Jan. 1969), 19-24.
- Electric Blankets**, Consumer Reports (Buying Guide Issue) 33, No. 12 (Dec. 1968), 93.
- Electric Blankets and Bedwarmers**, Fire Research Board (Gt. Brit.), Report, (1961), 6-7.
- "Explosive" Fabrics Create Fire Bombs for Millions of Sleeping Americans, *Trial* 2, No. 1 (Dec./Jan. 1965/66), 53.
- FALLOW, D. C., AND KELAART, K. I. M., Carpet as a Floor Covering, Parts 1 and 2, *Textile Journal of Australia* 43, No. 8 (Aug. 1968), 81-90; No. 9 (Sept. 1968), 51-54, 57-58.
- FERGER, J. F., Fiberglas: A True Fire-Safety Fabric, based on a paper presented at the Conference on Burns and Flame-Retardant Fabrics, held at the New York Academy of Medicine, December 2-3, 1966, New York Academy of Medicine. Bulletin 43, No. 8 (Aug. 1967), 685-693.
- Fibrolane in Carpets, Skinner's Silk and Rayon Record 35, No. 12 (Dec. 1961), 1251.

- Fire Hazard Tests of Jute, National Bureau of Standards (U.S.), *Technical News Bulletin* 148, 79-80 (Aug. 1929).
- Fire Hazards of Polyurethane Foam, Rubber and Plastics Age 50, No. 5 (May 1969) 346.
- Fire in Acrylic Carpeting, comments, Fire Journal 62, No. 4 (July 1968), 85.
- Fire in Acrylic Carpeting, *Fire Journal* **62**, No. 2 (Mar. 1968), 13-14, 18.
- Fire Spread by Polypropylene Carpeting, Fire Journal 62, No. 6 (Nov. 1968), 24-25.
- Fire-Safe Fabric for Apollo, Safety Maintenance 136, No. 6 (Dec. 1968), 41-44.
- Flame Free Cotton Mattresses**, Textile Industries 132, No. 7 (July 1968), 22.
- Flame Resistant Fabrics, International Dyer 133, No. 9 (May 7, 1965), 675-676.
- Flame Retardant Cotton Batting Workshop, Proceedings, held at New Orleans, Nov. 15, 1968, U.S. Agricultural Research Service, ARS 72-72, 77 pages (Oct. 1969). Selected papers from the workshop are listed under the authors: G. S. BUCK, G. CHYNOWETH, G. L. DRAKE, A. H. GAEDE, L. L. HEFFNER, N. B. KNOEPFLER, P. A. KOENIG, J. V. RYAN, AND S. L. SUTCLIFFE.
- Flame Retardant Fabrics for Hospital Use**, Textile Bulletin 94, No. 8 (Aug. 1968), 36-37.
- Flame Retardant Polyether Foam**, Rubber and Plastics Age 41, No. 8 (Aug. 1960), 936.
- Flame Retardant Polypropylene**, Textile Industries 131, No. 8 (Aug. 1967), 26.
- Flammability Hazard in All-Acrylic Carpeting, Consumer Reports 33, No. 7 (July 1968), 348.
- Flammability of Synthetic-Fibered Bed Blankets, American Society of Safety Engineers. Journal 13, No. 4 (Apr. 1968), 19-20.
- Flammability of Textiles, a symposium held in New York City, Jan. 18, 1963. A paper presented at the symposium is listed under the author: A. SPIEGELMAN.
- Flammability Standards Cause Concern, Chemical & Engineering News 47, No. 25 (June 16, 1969), 44.
- Flammable Carpets, Consumer Reports 34, No. 2 (Feb. 1969), 72-73.
- Flammable Fabrics: A Possibility of Safer Textiles—Some Day, Consumer Reports 33, No. 2 (Feb. 1968), 81-82.
- Foam Rubber in Consumer Products, National Fire

- Protection Association. Quarterly 46, No. 2 (Oct. 1952), 134-135.
- Foamed Polyurethane Fire Proves Difficult to Control, Atomic Energy Commission (U.S.) *Health and Safety Information*, No. 170, 2 pages (Sept. 10, 1963).
- FREEDLAND, V. D., Carpets, in *Review of Textile Progress* 16 (1964), 179-199 (Butterworths, London, 1965).
- FREEDMAN, E., Thermal Transmission of Fabrics, *Melliand* 2, No. 5 (Aug. 1930), 701-708.
- FREEDMAN, H. A., Pile Fabrics and Their Flammability, based on a paper presented at the Conference on Burns and Flame-Retardant Fabrics, held at the New York Academy of Medicine, December 2-3, 1966, New York Academy of Medicine. Bulletin 43, No. 8 (Aug. 1967), 663-668.
- FREEMAN, J. R., On the Safeguarding of Life in Theaters, American Society of Mechanical Engineers. Transactions 27 (1905), 71-170.
- FUCHS, O., HECKELT, F., AND HERZ, A., Herstellung, Eigenschaften und Anwendung des Weich-PVC-Schaumstoffes Trovipor (The Manufacture, Properties and Uses of Trovipor Flexible PVC Foam), *Kunststoffe* 55, No. 9 (Sept. 1965), 717-723, 18 refs.
- GAEDE, A. H., A Fire Retardant for Cotton Batting, in Flame Retardant Cotton Batting Workshop, Proceedings, held at New Orleans, Nov. 15, 1968, U.S. Agricultural Research Service, ARS 72-72, 54-56 (Oct. 1969).
- General Standards of Construction and Equipment for Hospital and Medical Facilities, U.S. Public Health Service, P.H.S. Publication No. 930-A-7, Revised, 50 pages (Feb. 1969).
- Glass Fiber Mattress Ticking**, Textile Industries 129, No. 12 (Dec. 1965), 27.
- GORD, L., Polyvinyl Chloride Fibers, in Man-Made Fibers: Science and Technology, edited by H. F. Mark, S. M. Atlas, E. Cernia, 3, 327-355 (Interscience, New York, 1968).
- Gottlieb Duttweiler Institute for Economic and Social Studies, Textile Flammability and Consumer Safety, edited proceedings of an international conference, held in Rueschlikon-Zuerich on Jan. 23-24, 1969, 206 pages (Gottlieb Duttweiler Institute for Economic and Social Studies, Reuschlikon-Zuerich, 1969). (GDI Occasional Publications, No. 45.) Selected papers are listed under the authors: S. E. KEMP AND W. M. SEGALL.
- Greater Safety From Death by Fire!, Textile Journal of Australia 41, No. 10 (Oct. 1966), 8-9, 20.

- GROSS, D., LOFTUS, J. J., LEE, T. G., AND GRAY, V. E., Smoke and Gases Produced by Burning Aircraft Interior Materials, National Bureau of Standards (U.S.), Building Science Series 18, 27 pages (Feb. 1969).
- GROVE-PALMER, F., Fire Resisting Rayon Goods, American Dyestuff Reporter 19, No. 19 (Nov. 10, 1930), 715-716.
- GRUBBS, O. G., Recent Trends in the Blanket-Industry, in Information Council on Fabric Flammability. Proceedings of the First Annual Meeting, New York City, December 14, 1967, 92-95 (ICFF, New York, no date).
- HAMMACK, J. M., Los Angeles Fire Department Tests-Cigarette Ignition of Bedding, Fire Journal 59, No. 3 (May 1959), 9-11.
- Heat Resistant Sewing Threads, Textile Weekly 69(1), No. 2136 (21 Mar. 1969), 349.
- HEFFNER, L. L., Flame Retardant Cotton State of the Art, in Flame Retardant Cotton Batting Workshop, Proceedings, held at New Orleans, Nov. 15, 1968, U.S. Agricultural Research Service, ARS 72-72, 16-24 (Oct. 1969), 16 refs.
- HILADO, C. J., Flame Retardant Urethane Foams, Journal of Cellular Plastics 4, No. 9 (Sept. 1968), 339-344, 73 refs.
- HINTON, J. E. L., The Fire Hazard of the Domestic Carpet***, Fire Research Board (Gt. Brit.), F.M. 320, 2 pages (July 1957).
- HOCHSTAEDTER, L., Rhovyl-Polyvinyl Chloride Fibers, Textile Research Journal 28, No. 1 (Jan. 1958), 78-85, 6 refs.
- Hospital Bed Pad**, Textile Industries 131, No. 3 (Mar. 1967), 33.
- **Hotbed of Trouble****, Fire Protection Review 25, No. 260 (June 1962), 397-398.
- Hotel Damaged by Fire**, Fire 55, No. 693 (Mar. 1963), 561.
- How Glass-Fibres Are Solving Apollo's Problems, Safety Maintenance 134, No. 2 (Aug. 1967), 23-25.
- HOWARD, R. E., Flame Resistant Drapery Fabrics, Textile Industries 131, No. 7 (July 1967), 104, 106.
- HOWRY, K. A., We Don't Know Much About Fabric Flammability?, Modern Textiles Magazine 50, No. 8 (Aug. 1969), 56-61.
- Indoor-Outdoor Carpeting, Consumer Reports 33, No. 6 (June 1968), 302-305.
- Information Council on Fabric Flammability, Proceedings of the 1st Annual Meeting, Hotel Commodore, New York City, Dec. 14, 1967, 143

- pages (ICFF, New York, N.Y., no date). A paper presented at the meeting is listed under the author, O. G. GRUBBS.
- Information Council on Fabric Flammability, Proceedings of the 2nd Annual Meeting, Hotel Commodore, New York City, Dec. 3, 1968, 245 pages (ICFF, New York, N.Y., no date). Selected papers presented at the meeting are listed under the authors: M. J. KOROSKYS; B. B. MCGUIRE; J. F. MARCY; K. SUMI AND G. WILLIAMS-LEIR.
- INGBERG, S. H., DUNHAM, J. W., AND THOMPSON, J. P., Combustible Contents in Buildings, National Bureau of Standards (U.S.), Building Materials and Structures Report 149, 16 pages (July 1957), 6 refs.
- Institutional Research Council, Carpet Underlays: Performance Characteristics, prepared by Foster D. Snell, Inc., 30 pages (Institutional Research Council, N.Y., 1967).
- Interesting Fire in a Spring Mattress, Fire International, No. 1 (July 1963), 60-63.
- It's Paper . . . Sheet . . . Fabric . . . It's Spunbonded, Modern Plastics 45, No. 8 (April 1968), 93-96.
- It's Time for Facts About Carpeting, Family Safety, Winter (1968), 22-24.
- JACOBS, E. A., AND RIETH, B. G., Testing Flame-Retardant Linen for Hospital Use***, *Hospitals* (May 1968), 65-67, 144, 6 refs.
- JUILLARD, P., Etude de la Combustibilite des Tapis*** (Combustibility of Carpets), *Teintex* 32, No. 2 (1967), 102, 105, 107, 108, 111, 113, 114, 117, 119, 3 refs.
- JUILLERAT, E. E., AND GAUDET, R. E., Three Hotel Fires, Fire Journal 60, No. 3 (May 1966), 35-43.
- KAY, B. W., Spraying on Safety, *Skinner's Record* 37, No. 1 (Jan. 1963), 39, 41.
- KEARNEY, P., Common Fire Hazards of the Modern House, Home Safety Review 19, No. 4 (Winter 1960), 16-19.
- KEMP, S. E., Textile Flammability Regulations in Great Britain, paper presented at the conference, Textile Flammability and Consumer Safety, held in Rueschlikon-Zuerich on Jan. 23-24, 1969, in Textile Flammability and Consumer Safety, 65-73 (Gottlieb Duttweiler Institute for Economic and Social Studies, Rueschlikon-Zuerich, 1969).
- KENNEDY, R. K., Modacrylic Fibers, in Man-Made Fibers: Science and Technology, edited by H. F. Mark, S. M. Atlas, E. Cernia, 3, 199-243 (Interscience, New York, 1968), 187 refs.
- KIRK, P. L., Fire Investigation; Including Fire-Re-

- lated Phenomena: Arson, Explosion, Asphyxiation, 255 pages (Wiley, New York, 1969).
- KNOEPFLER, N. B., Latest Research at SURDD to Develop Flame Retardant Conventional Cotton Batting, in *Flame Retardant Cotton Batting Workshop*, *Proceedings*, held at New Orleans, Nov. 15, 1968, U.S. Agricultural Research Service, ARS 72-72, 40-49 (Oct. 1969).
- KOENIG, P. A., AND KNOEPFLER, N. B., Flame Retardant Cotton Batting Products, American Dyestuff Reporter 58, No. 17 (Aug. 25, 1969), 30-34, 36, 5 refs.
- KOENIG, P. A., Flame Retardant Cotton Flote, in Flame Retardant Cotton Batting Workshop, Proceedings, held at New Orleans, Nov. 15, 1968, U.S. Agricultural Research Service, ARS 72-72, 29-39 (Oct. 1969).
- KOROSKYS, M. J., Flammability of Textiles, in Information Council on Fabric Flammability. Proceedings of the Second Annual Meeting, New York City, December 3, 1968, 182-193 (ICFF, New York, no date); also in American Dyestuff Reporter 58, No. 6 (Mar. 24, 1969), 15-20.
- LANGSTAFF, W., A Flame-Resistant Synthetic Fiber, summary of a paper presented at the Textile Flammability Conference, Boston, Oct. 2-3, 1962, in *Textile Flammability Conference*, 35-40 (National Fire Protection Association, Boston, 1962).
- Latex for Use in Fire-Retardant Coatings, American Dyestuff Reporter 56, No. 6 (Mar. 13, 1967), 193.
- LE BLANC, R. B., Fire-Retardant Finishes for Cotton, *Textile Month* (Mar. 1969), 88-89.
- Lees Carpets Introduces "Wallscaping," American Dyestuff Reporter 58, No. 18 (Sept. 8, 1969), 32-33.
- Long, P., "Bukflex" Simulated Leather, Rubber and Plastics Age 49, No. 8 (Aug. 1968), 695.
- LONG, P., Non-Woven Fabrics, Rubber and Plastics Age 49, No. 2 (Feb. 1968), 127-128.
- Man Made Fibres, Textile Weekly, 69(1), No. 2135 (14 Mar. 1969), 340.
- MANDELL, M., Fire Retardant Plastics, Electronic Products 11, No. 5 (Feb. 1969), 18-32.
- Manmade Fibers Used in Carpet Manufacturing, chart, *Modern Textiles Magazine* 50, No. 1 (Jan. 1969), 62.
- MARCY, J. F., Airplane Cabin Interior Materials Fire Tests and Requirements, in Information Council on Fabric Flammability. Proceedings of the Second Annual Meeting, New York City, Dec. 3, 1968, 137-142 (ICFF, New York, no date).
- MARCY, J. F., Interior Material Finishes, Fire Technology 2, No. 4 (Nov. 1966), 263-273, 7 refs.

- MARCY, J. F., NICHOLAS, E. B., AND DEMAREE, J. E., Flammability and Smoke Characteristics of Aircraft Interior Materials, U.S. Federal Aviation Agency, Washington D.C., *Technical Report* ADS-3, 104 pages (Jan. 1964); AD 600 387.
- Mattresses**, Consumer Bulletin—Annual 1966, 40 (Sept. 1965), 175-176.
- Mattresses**, Consumer Bulletin—Annual 1967, 41 (Sept. 1966), 42-43.
- Mattresses**, Consumer Bulletin-Annual 1968, 42 (Sept. 1967), 203.
- Mattresses**, Consumer Bulletin—Annual 1970, 44 (Sept. 1969), 145.
- Mattresses and Box Springs, Consumer Reports 33, No. 9 (Sept. 1968), 486-491.
- Mattresses Can Be Flame-Resistant**, Consumer Reports 34, No. 2 (Feb. 1969), 56.
- McGuire, B. B., and Oglesbay, F. B., an Assessment of the Use of Flame-Retardant Fabrics in a Public Health Service Hospital, in Information Council on Fabric Flammability. Proceedings of the Second Annual Meeting, New York City, December 3, 1968, 147-157 (ICFF, New York, no date).
- MCGUIRE, J. H., The Spread of Fire in Corridors, Fire Technology 4, No. 2 (May 1968), 103-108.
- Measurement of Flammability, a Symposium on the, sponsored by the National Bureau of Standards, held in Washington, D.C., June 5-6, 1969. Proceedings to be published.
- MEAZEY, A. E., AND FARMER, D. W. A., Latices of Vinyl Chloride Polymers, *British Plastics* 38, No. 2 (Feb. 1965), 98-105, 4 refs.
- MECKEL, L., Beitrag zur Pruefung der Entflammbarkeit von textilen Bodenbelaegen (Testing of the Flame Resistance of Textile Floor Coverings), Zeitschrift fuer die gesamte Textilindustrie 71, No. 6 (June 1969), 404-407, 12 refs.
- Men, the Money, the 360,000 Beds, Modern Hospital 107, No. 2 (Aug. 1966), 95-99, 164, 167, 168.
- MENNERICH, F. A., New Textile Uses for Glass Fiber Yarns, Modern Textiles Magazine 43, No. 12 (Dec. 1962), 43-45, 67.
- Merry Christmas, National Bureau of Standards (U.S.) Accident and Fire Prevention Information, No. 39, 1 (Dec. 1969).
- MERVIN, G. A., Testing a New Flame-Retardant, High-Density Foam Backing for Carpets, American Dyestuff Reporter 58, No. 12 (June 16, 1969), 44-45.
- MEZIERES, F. A., Les Papiers pour Usages Textiles

- (Papers for Textile Use), Papeterie 89, No. 7 (July 1967), 700-707, 5 refs.
- MITCHELL, N. D., The Safety of Theatre Proscenium Curtains, Safety Engineering 49, No. 2 (Feb. 1925), 63-68.
- MITCHELL, N. D., Theatre Safety Curtains, National Fire Protection Association. *Quarterly* 18, No. 4 (Apr. 1925), 366-372.
- MOULTON, R. S., NFPA Building Exits Code and Standard for Flameproofed Textiles, summary of a paper presented at the Textile Flammability Conference held in Boston, Oct. 2-3, 1962, in Textile Flammability Conference, 25-26 (National Fire Protection Association, Boston, 1962).
- National Bureau of Standards (U.S.) Commercial Standard CS 192-53, General Purpose Vinyl Plastic Film, 13 pages, (1953), including Amendment No. 1 (Apr. 22, 1954), Amendment No. 2 (Dec. 1, 1954).
- National Fire Protection Association, NFPA Standard No. 701–1968, Fire Tests-Flame-Resistant Textiles, Films, 28 pages (1968).
- National Fire Protection Association, *Textile Flammability Conference*, edited transcript of a conference held in Boston, Oct. 2-3, 1962, 46 pages (NFPA, Boston, 1962.) Papers presented at the conference are listed under the authors: W. LANGSTAFF; R. S. MOULTON; L. SEGAL; AND R. WILSON.
- Neue Anwendung fuer Spezialfasern (New Use for Special Fibers), *Chemiefasern* 19, No. 2 (Feb. 1969), 107-108.
- New and Promising Indoor-Outdoor Carpets Stand Weather Exposure Well, Consumer Bulletin 49, No. 8 (Aug. 1966), 22-23.
- New ASTM Flammability Section Draws Many to Discuss Tests, Modern Textiles Magazine 50, No. 4 (Apr. 1969), 24-25.
- New Flame Resistant Finish for Cotton Batting***, Textile Manufacturer 94 (Apr. 1968), 171.
- New York (State) Legislature. Assembly. Committee on Rules, An Act to Amend the General Business Law, in Relation to the Manufacture, Sale, Introduction or Movement in Commerce of Wearing Apparel, Related Material and Interior Furnishings Which Are So Highly Flammable as To Be Dangerous When Worn or Used by Individuals, introduced April 17, 1969, No. 7074, 12 pages.
- News in Domestics, Modern Textiles Magazine 42, No. 2 (Feb. 1961), 36.
- Nineteen Sixty-Two HF Fabrics: More Colors, Tex-

- tures, Quality, Upgrading, Modern Textiles Magazine 43, No. 2 (Feb. 1962), 42, 45-47, 57, 59.
- Non-Flammable Carpet**, Textile Industries 133, No. 2 (Feb. 1969), 33.
- Non-Flammable Carpet Backing**, Textile Industries 132, No. 4 (Apr. 1968), 28.
- OBOLD, W. L., HOFFHEINS, F. M., INGBERG, S. H., AND JAMES, L. H., *Heating and Ignition Tests* With Jute, 47 pages (National Fire Protection Association, Boston, Mass., 1934), 12 refs.
- Outbreak Is a Warning to Physiotherapists, Fire 55, No. 692 (Feb. 1963), 502-503.
- Performance Tests for Carpets, International Dyer 136, No. 7 (Oct 7, 1966), 495-496.
- Perrotts of London, A Short Guide to the Law and Standards for Flameproofing of Furnishing and Curtain Fabrics in the United Kingdom, 18 pages (John Bluff, London, no date).
- Pillows**, Consumer Bulletin-Annual 1967 41 (Sept. 1966), 43.
- Pillows**, Consumer Bulletin-Annual 1968, 42 (Sept. 1967), 203.
- Pillows**, Consumer Bulletin-Annual 1970, 44 (Sept. 1969), 145.
- Polychlal Synthetic Fibre, Rubber and Plastics Age 50, No. 5 (May 1969), 345.
- POWERS, D. H., Applied Research in the Textile Industry, Chemical & Engineering News 26, No. 20 (May 17, 1948), 1442, 1451.
- Problem of Flammability, Retail Trading-Standards Association, London. *Trade Information Service Bulletin* 197, 3 (Feb. 1964).
- Problem of Flammable Fabrics, Textile Industries 131, No. 2 (Feb. 1967), 86-89, 96.
- Rapid Build-Up in Sack Blaze**, Fire Protection Review 25, No. 264 (Oct. 1962), 650.
- RILEY, M. W., What's New in Foam Plastics, *Materials in Design Engineering* 53, No. 3 (Mar. 1961), 119-134, 4 refs.
- ROCKEY, K. W., The Fire Hazards of Plastics Materials, *Plastics* (London) 26, No. 283 (May 1961), 103-106.
- Rugs and Carpets**, Consumer Bulletin-Annual 1966, 40 (Sept. 1965), 178-179.
- Rugs and Carpets**, Consumer Bulletin-Annual 1968, 42 (Sept. 1967), 199.
- Rugs and Carpets**, Consumer Bulletin-Annual 1969, 43 (Sept. 1968), 39-40.

- RYAN, J., Flammable Fabrics Act and Its Implementation, Modern Textiles Magazine 50, No. 3 (Mar. 1969), 67-70, 8 refs.
- RYAN, J. V., Implementation of the Flammable Fabrics Act, in Flame Retardant Cotton Batting Workshop, Proceedings, held at New Orleans, Nov. 15, 1968, U.S. Agricultural Research Service, ARS 72-72, 12-15 (Oct. 1969).
- Safe From Fire Risk, Rubber and Plastics Age 38, No. 10 (Oct. 1957), 877.
- SALE, P. D., AND HEDRICK, A. F., Measurement of Heat Insulation and Related Properties of Blankets, National Bureau of Standards (U.S.), *Technologic Papers* 18, No. 266, 529-546 (Dec. 5, 1924).
- SAYERS, L. W., The Flammability of Fibres, Fabrics and Garments, Textile Institute and Industry 3, No. 7 (July 1965), 168-171.
- SCHUMM, R. W., AND CRUZ, C. J., Dyeing and Finishing Nomex Nylon, *Textile Chemist and Colorist* 1, No. 18 (Aug. 27, 1969), 388-391, 2 refs.
- SEGAL, L., Foam Rubber and Cotton Mattresses, National Fire Protection Association. *Quarterly* 48, No. 2 (Oct. 1954), 119-122.
- SEGAL, L., The Flammable Fabrics Problem, summary of a paper presented at the Textile Flammability Conference, Boston, Oct. 2-3, 1962, in *Textile Flammability Conference*, 119-122 (National Fire Protection Association, Boston, 1962).
- SEGALL, W. M., A Fire in Our Bosom, Textile Chemist and Colorist 1, No. 3 (Jan. 29, 1969), 67-69, 7 refs.
- SEGALL, W. M., The U.S. Flammable Fabrics Act, paper presented at the conference, Textile Flammability and Consumer Safety, held in Rueschlikon-Zuerich on Jan. 23-24, 1969, in Textile Flammability and Consumer Safety, 74-80 (Gottlieb Duttweiler Institute for Economic and Social Studies, Rueschlikon-Zuerich, 1969), 8 refs.
- SEGGIE, D., Developments With Polypropylene in Primary Backing Fabrics for Tufted Carpets—Part II***, Textile Recorder 85, No. 1011 (June 1967), 50-52, 64.
- SHERWOOD, P. W., Synthetic Fibres for Carpets, Canadian Textile Journal 81 (Mar. 27, 1964), 67-68.
- Short Wave Therapy Caused Fire: Unusual Discovery, Fire Protection Review 26, No. 268 (Feb. 1963), 113-114.
- Single Fatality Fire, Fire Journal 63, No. 1 (Jan. 1969), 34-35.

- Small Fires That Kill, Fire Protection Association Journal, No. 80 (Dec. 1968), 120-125.
- Society of Automotive Engineers, SAE J369, Flammability of Automotive Interior Trim Materials—Horizontal Test Method, 2 pages (1969).
- Some Possibilities in Carpet Fiber Development Projected, Modern Textiles Magazine 50, No. 5 (May 1969), 52.
- Space Stadium Blanket, Consumer Bulletin 50, No. 11 (Nov. 1967), 16-17.
- Spangle Affair, Consumer Reports 35, No. 1 (Jan. 1970), 30-31.
- SPIEGELMAN, A., Some Basic Problems Affecting the Flammability of Textiles, a paper presented at the symposium, Flammability of Textiles, held in New York City, Jan. 18, 1963, in *American Dyestuff Reporter* 52, No. 12 (June 10, 1963), 452-454.
- Stair Carpets***, Which, Consumers' Association, London (Mar. 1967), 68-73.
- STEPHENSON, R. M., AND STEPHENSON, L. F., The Effects of Thermal Radiation on Drapery and Upholstery Fabrics, American Dyestuff Reporter 57, No. 17 (Aug. 12, 1968), 623-631, 21 refs.
- SUMI, K., AND WILLIAMS-LEIR, G., Lethal Effects of Mattress Fires, in Information Council on Fabric Flammability, *Proceedings of the Second Annual Meeting, New York City, December 3, 1968*, 204-229 (ICFF, New York, no date), 5 refs.
- Sun Rays on Mirror**, Fire Journal 62, No. 2 (Mar. 1968), 44.
- SUTCLIFFE, S. L., The Flammable Fabrics Act, in Flame Retardant Cotton Batting Workshop, Proceedings, held at New Orleans, Nov. 15, 1968, U.S. Agricultural Research Service, ARS 72-72, 9-11 (Oct. 1969).
- SWANSON, A. L., AND ADOLPH, G. A., Comparing Mattresses for Flammability Potentials, *Hospitals* 37 (Sept. 1, 1963), 37-40.
- Symposium on the Measurement of Flammability, sponsored by the National Bureau of Standards, held in Washington, D. C., June 5-6, 1969. Proceedings to be published.
- Technical Association of the Pulp and Paper Industry, T461m-48, Standard Method of Test for Flammability of Treated Paper and Paperboard, the counterpart to ASTM D777-46 (Reapproved 1965), in Part 15, Book of ASTM Standards 1969, 211-212 (American Society for Testing and Materials, Philadelphia, Pa., 1969).
- Teklan-The Fire-Safe Fabric From Courtaulds,

- International Dyer 141, No. 7 (Apr. 4, 1969), 446-448.
- 'Teviron' PVC Fibre, Rubber and Plastics Age 50, No. 4 (Apr. 1969), 267.
- Textile Finishing Processes in the United States, Textile Weekly 69(2), No. 2156 (8 Aug. 1969), 164-165, 171.
- Textile Flammability and Consumer Safety, edited proceedings of an international conference held in Rueschlikon-Zuerich on Jan. 23-24, 1969, 206 pages (Gottlieb Duttweiler Institute for Economic and Social Studies, Rueschlikon-Zuerich, 1969). (GDI Occasional Publications, No. 45.) Selected papers are listed under the authors: S. E. KEMP AND W. M. SEGALL.
- Textile Flammability Conference, edited transcript of a conference held in Boston, Oct. 2-3, 1962, 46 pages (National Fire Protection Association, Boston, 1962.) Papers presented at the conference are listed under the authors: W. LANG-STAFF; R. S. MOULTON; L. SEGAL; AND R. WILSON.
- Textured Modacrylic Introduced**, Modern Textiles Magazine 42, No. 8 (Aug. 1961), 30.
- That New Indoor/Outdoor Carpeting**, Consumer Bulletin 52, No. 3 (Mar. 1969), 5.
- Tracked-In Dirt on the Floor? Try a Rug at the Door, Consumer Bulletin 51, No. 8 (Aug. 1968), 9-10.
- TRUSLOW, N. A., Carpet Characteristics, Part 3 of A New Piece Dyeable Polypropylene Carpet Fiber, Modern Textiles Magazine 44, No. 9 (Sept. 1963), 93-96.
- U.S. Department of Commerce, Carpets and Rugs; Notice of Finding That Flammability Standard or Other Regulation May Be Needed and Institution of Proceedings, Federal Register 33, No. 234 (Dec. 3, 1968), 17921.
- U.S. Department of Commerce, Carpets and Rugs; Notice of Proposed Flammability Standard, Federal Register 34, No. 242 (Dec. 18, 1969), 19812-19814.
- U.S. General Services Administration, Interim Amendment to Federal Specification DDD-C-95, Int. Amendment-1 (GSA-FSS), Carpets and Rugs, Wool, Nylon, Acrylic, Modacrylic, 4 pages (Mar. 1969).

- U.S. General Services Administration, Interim Federal Specification DDD-C-001173 (GSA-FSS), Carpet, Nonwoven, Polypropylene, Outdoor-Indoor Type, 8 pages (July 1966).
- U.S. General Services Administration, Management of Buildings and Grounds; Firesafety, Federal Register 34, No. 65 (Apr. 5, 1969), 6192-6193.
- U.S. General Services Administration, Federal Specification DDD-C-95, Carpets and Rugs, Wool, Nylon, Acrylic, Modacrylic, 18 pages (Apr. 1965).
- USASI Ad Hoc Unit Sends Seven Tests to Govt., Modern Textiles Magazine 50, No. 8 (Aug. 1969), 61.
- USDA Goal: Fire-Retardant Cotton Batting, American Dyestuff Reporter 58, No. 2 (Jan. 27, 1969), 50.
- What You Need to Know About Flammable Fabrics, Consumer Bulletin 50, No. 3 (Mar. 1967), 16-17.
- WILLIAMS-LEIR, G., Deaths From Clothing and Bedding Fires, Canadian Journal of Public Health 58, No. 10 (Oct. 1967), 444-453, 2 refs.
- WILSON, R., Fires Involving Nonclothing Fabrics, summary of a paper presented at the Textile Flammability Conference, Boston, Oct. 2-3, 1962, in *Textile Flammability Conference* 11-13 (National Fire Protection Association, Boston, 1962).
- WOOD, S., Facing the Problems of Fire, Modern Plastics 45, No. 10 (June 1968), 82-86.
- Wool Comes Out Top in Flame Tests, Textile Weekly 68, No. 2089 (19 Apr. 1968), 456.
- Woven Upholstery Fabrics in Demand, Skinner's Record 40, No. 4 (Apr. 1966), 253.
- YERKESS, W. G., Flammability of Textile Fabrics, Textile Weekly 65(1), No. 1931 (Mar. 19, 1965), 514-515.
- YUILL, C. H., Floor Coverings: What is the Hazard?, Fire Journal 61, No. 1 (Jan. 1967), 11-19.
- ZIMMERMAN, R. F., Flame-Resistant Cotton Textiles; A Progress Report on Performance Specs, Textile Industries 126, No. 6 (June 1962), 112, 114, 130.

Author Index

Α

ABERNETHY, N. W., 3.
ADOLPH, G. A., SWANSON, A. L., 9.
ARLEDTER, H. F., KNOWLES, S. E., DRUCK, J. U., 3.
ARTHUR, J. B., 3.

В

BABCOCK, C. I., 3.
BARBER, R. P., 3.
BEST-GORDON, H. W., 3.
BRISSETTE, R. S., 3.
BROWN, C. E., 3.
BUCK, G. S., 3.
BURNETT, R., 3.
BYERS, D. J., 4.

C

CAMPBELL, J., 4.
CAROSELLI, R. F., 4.
CHRISTENSEN, G., LOHSE, U., MALMSTEDT, K., 4.
CHURCH, J., 4.
CHYNOWETH, G., 4.
CRUZ, C. J., SCHUMM, R. W., 9.

D

DEMAREE, J. E., MARCY, J. F., NICHOLAS, E. B., 7. DIAMOND, D., 4. DRAKE, G. L., 4. DRUCK, J. U., ARLEDTER, H. F., KNOWLES, S. E., 3. DUNHAM, J. W., THOMPSON, J. P., INGBERG, S. H., 6.

E

EGERTON, G., 4.

GAEDE, A. H., 5.

F

FALLOW, D. C., KELAART, K. I. M., 4. FARMER, D. W. A., MEAZEY, A. E., 7. FERGER, J. F., 4. FREEDLAND, V. D., 5. FREEDMAN, E., 5. FREEDMAN, H. A., 5. FREEMAN, J. R., 5. FUCHS, O., HECKELT, F., HERZ, A., 5.

G

GAUDET, R. E., JUILLERAT, E. E., 6. GORD, L., 5. GRAY, V. E., GROSS, D., LOFTUS, J. J., LEE, T. G., 6. GROSS, D., LOFTUS, J. J., LEE, T. G., GRAY, V. E., 6. GROVE-PALMER, F., 6. GRUBBS, O. G., 6.

Н

Hammack, J. M., 6.
Heckelt, F., Herz, A., Fuchs, O., 5.
Hedrick, A. F., Sale, P. D., 9.
Heffner, L. L., 6.
Herz, A., Fuchs, O., Heckelt, F., 5.
Hilado, C. J., 6.
Hinton, J. E. L., 6.
Hochstaedter, L., 6.
Hoffheins, F. M., Ingberg, S. H., James, L. H., Obold, W. L., 8.
Howard, R. E., 6.
Howry, K. A., 6.

ŀ

INGBERG, S. H., DUNHAM, J. W., THOMPSON, J. P., 6. INGBERG, S. H., JAMES, L. H., OBOLD, W. L., HOFFHEINS, F. M., 8.

J

JACOBS, E. A., RIETH, B. G., 6.

JAMES, L. H., OBOLD, W. L., HOFFHEINS, F. M., INGBERG, S. H., 8.

JUILLARD, P., 6.

JUILLERAT, E. E., GAUDET, R. E., 6.

K

KAY, B. W., 6.
KEARNEY, P., 6.
KELAART, K. I. M., FALLOW, D. C., 4.
KEMP, S. E., 6.
KENNEDY, R. K., 6.
KIRK, P. L., 6.
KNOEPFLER, N. B., KOENIG, P. A., 7.
KNOEPFLER, N. B., 7.
KNOWLES, S. E., DRUCK, J. U., ARLEDTER, H. F., 3.
KOENIG, P. A., KNOEPFLER, N. B., 7.
KOENIG, P. A., 7.
KOROSKYS, M. J., 7.

L

LANGSTAFF, W., 7.
LE BLANC, R. B., 7.
LEE, T. G., GRAY, V. E., GROSS, D., LOFTUS, J. J., 5.
LOFTUS, J. J., LEE, T. G., GRAY, V. E., GROSS, D., 5.
LOHSE, U., MALMSTEDT, K., CHRISTENSEN, G., 4.
LONG, P., 7.
LONG, P., 7.

M

MALMSTEDT, K., CHRISTENSEN, G., LOHSE, U., 4. MANDELL, M., 7. MARCY, J. F., NICHOLAS, E. B., DEMAREE, J. E., 7.

MARCY, J. F., 7. MCGUIRE, B. B., OGLESBAY, F. B., 7.

McGuire, J. H., 7.

MEAZEY, A. E., FARMER, D. W. A., 7.

MECKEL, L., 7.

MENNERICH, F. A., 7.

MERVIN, G. A., 7.

MEZIERES, F. A., 7.

MITCHELL, N. D., 8.

MOULTON, R. S., 8.

N

NICHOLAS, E. B., DEMAREE, J. E., MARCY, J. F., 7.

0

OBOLD, W. L., HOFFHEINS, F. M., INGBERG, S. H., JAMES, L. H., 8.

OGLESBAY, F. B., McGuire, B. B., 7.

P

Powers, D. H., 8.

R

RIETH, B. G., JACOBS, E. A., 6. RILEY, M. W., 8. ROCKEY, K. W., 8. RYAN, J., 9. RYAN, J. V., 9.

Ŝ

SALE, P. D., HEDRICK, A. F., 9.
SAYERS, L. W., 9.
SCHUMM, R. W., CRUZ, C. J., 9.
SEGAL, L., 3, 9.
SEGALL, W. M., 9.
SEGGIE, D., 9.
SHERWOOD, P. W., 9.
SPIEGELMAN, A., 9.
STEPHENSON, L. F., STEPHENSON, R. M., 9.
STEPHENSON, R. M., STEPHENSON, L. F., 9.
SUMI, K., WILLIAMS-LEIR, G., 9.
SUTCLIFFE, S. L., 9.
SWANSON, A. L., ADOLPH, G. A., 9.

T

Thompson, J. P., Ingberg, S. H., Dunham, J. W., 6. Truslow, N. A., 10.

W

WILLIAMS-LEIR, G., SUMI, K., 9. WILLIAMS-LEIR, G., 10. WILSON, R., 10. WOOD, S., 10.

Y

YERKESS, W. G., 10. YUILL, C. H., 10.

7

ZIMMERMAN, R. F., 10.

Key Word Index

Α

Acetate; Polyester; 4.

Acrylic; Amendment to Federal Specification DDD-C-95; Carpets; Modacrylic; Nylon; Rugs; Wool; 10.

Acrylic; Carpeting; Fire; 5.

Acrylic; Carpets; Federal Specification DDD-C-95; Modacrylic; Nylon; Wool; Rugs; 10.

Acrylic carpeting; Carpeting; Flammability hazard; 5. Act; Act to amend; Flammable; Interior furnishings; Law; Wearing apparel; 8.

Act; Amend Flammable fabrics; Protection; U.S. Code; U.S. Statutes at Large; 3.

Act; Fabrics; Flammable fabrics; Flammable Fabrics Act; U.S.; 9.

Act; Fabrics; Flammable fabrics; 8, 9.

Act; Flammable fabrics act; Fabrics; Implementation; 9. Act to amend; Flammable; Interior furnishings; Law; Wearing apparel; Act; 8.

Aircraft; Flammability; Interior materials; Smoke characteristics; 7.

Aircraft; Gases; Interior materials; Smoke; 6.

Aircraft interiors; Interiors; Textiles; 4.

Airplane cabin; Fire tests and requirements; Interior materials; Tests; 7.

Amend: Flammable fabrics; Protection; U.S. Code; U.S. Statutes at Large; Act; 3.

Amendment to Federal Specification DDD-C-95; Carpets; Modaerylie; Nylon; Rugs; Wool; Acrylie; 10.

Applied research; Industry; Research; Textile; 8.

Arson; Asphyxiation; Explosion; Fire; 6. Asphyxiation; Explosion; Fire; Arson; 6.

ASTM; Flammability; Paper; Paperboard; Standard method of test; Test; 3, 9.

ASTM; Flammability section; Tests; 8.

В

Baby blankets; Blankets; 3.

Backing; Carpets; Flame-retardant; Foam; Testing; 7. Backing fabrics; Carpets; Polypropylene; Tufted carpets;

Batting; Cotton; Flame retardant; Products; 7.

Batting; Cotton batting; Fire-retardant; 10.

Batting; Cotton batting; Flame resistant finish; 8.

Bed pad; Hospital: 6.

Bedding; Cigarette; Ignition; 6.

Bedding; Clothing; Deaths; Fires; 10.

Beds; Men; Money; 7.

Bedwarmers; Electric blankets; 4.

Blanket: 9.

Blanket industry; 6.

Blankets; 3.

Blankets; Baby blankets; 3.

Blankets; British standards; Electrically-heated blan-

Blankets; Fabrics; Nonclothing fabrics; 3.

Blankets; Fibers; Wool; 3.

Blankets; Flammability; Synthetic-fibered; 5.

Blankets; Heat insulation; 9.

Blaze; Build-up; Sack; 8.

Bonding; Fabric flammability; 3. Box springs; Mattresses; Springs; 7.

British standards; Electrically-heated blankets; Blankets: 3.

British Standards Institution; Coated fabrics; Test; 3. British Standards Institution; Fabrics; Flammability; 3.

Build-up; Sack; Blaze; 8.

Bukflex: Simulated leather; 7.

Burns; Conference; Fabrics; Flame-retardant fabrics;

Burns; Conference; Fabrics; Flame-retardant fabrics; Flammability; Pile fabrics; 5.

Carpet; Federal Specification DDD-C-001173; Outdoor-

indoor; Polypropylene; 10.

Carpet; Fire hazard; 6.

Carpet; Floor covering; 4.

Carpet; Manmade fibers; 7.

Carpet; Non-flammable carpet; 8.

Carpet; Underlays; 6.

Carpet backing: 4.

Carpet backing; Non-flammable carpet backing; 8.

Carpet fiber; Fiber; 9.

Carpet fiber; Polypropylene; 10.

Carpet flammability; 4.

Carpeting: 6.

Carpeting; Fire; Acrylic; 5.

Carpeting; Fire; Polypropylene; 5.

Carpeting; Flammability hazard; Acrylic carpeting; 5.

Carpeting; Indoor-outdoor carpeting; 6. Carpeting; Indoor/outdoor carpeting; 10.

Carpeting; Man-made fibres; Wool; 4.

Carpets; 5, 7.

Carpets; Combustibility; 6.

Carpets; Federal Specification DDD-C-95; Modacrylic;

Nylon; Wool; Rugs; Acrylic; 10.

Carpets; Fibres; Synthetic fibres; 9.

Carpets; Fibrolane; 4.

Carpets; Finding; Flammability standard; Rugs; 10.

Carpets; Flame-retardant; Foam; Testing; Backing; 7.

Carpets; Flammability; Rugs; Standard; 10.

Carpets; Flammable carpets; 5.

Carpets; Indoor-outdoor carpets; Weather; 8.

Carpets; Modacrylic; Nylon; Rugs; Wool; Acrylic; Amendment to Federal Specification DDD-C-95; 10.

Carpets; Performance tests; Tests; 8.

Carpets; Polyester; 3.

Carpets; Polypropylene; Tufted carpets; Backing fabrics; 9.

Carpets; Rugs; 4, 8.

Carpets; Stair carpets; 9.

Cigarette; Ignition; Bedding; 6.

Clothing; Deaths; Fires; Bedding; 10.

Coated fabrics; Test; British Standards Institution; 3.

Coatings; Fire-retardant coatings; Latex; 7.

Colors; Fabrics; HF fabrics; Quality; Textures; 8.

Combustibility; Carpets: 6. Combustible contents; 6.

Conference; Fabrics; Flame retardant fabrics; Burns; 3, 4.

Conference; Fabrics; Flame-retardant fabrics; Flammability; Pile fabrics; Burns; 5.

Conference; Flammability; 8, 10.

Construction; Equipment; Hospital; Medical facilities; Standards; 5.

Consumer safety; Flammability; Safety; Textile; 5, 10. Control; Fire; Foamed polyurethane fire; Polyurethane;

Corridors; Spread of fire; 7.

Cotton; Finishes; Fire-retardant finishes; 7.

Cotton; Fire retardancy; Polyester/cotton; Sheeting; 3.

Cotton; Flame retardant; Products; Batting; 7.

Cotton; Flame retardant; 6.

Cotton; Flame-resistant; Performance specs; Textiles;

Cotton batting; Fire retardant; 5.

Cotton batting; Fire-retardant; Batting; 10.

Cotton batting; Flame resistant finish; Batting; 8.

Cotton batting; Flame retardant; Research; SURDD; 7.

Cotton batting; Flame retardant; Workshop; 5.

Cotton batting products; 3.

Cotton flote; Flame retardant; 7.

Cotton mattresses; Foam rubber; Mattresses; 9.

Courtaulds; Fabric; Fire-safe; Teklan; 9.

Curtain; Fabrics; Flameproofing; Law; Standards; 8.

Curtains; Draperies; 4.

Curtains; Proscenium; Theatre; 8.

Curtains: Theatre: 8.

D

Death; Fire; Safety; 5.

Deaths; Fires; Bedding; Clothing; 10.

Dirt; Door; Floor; Rug; 10.

Domestics; News; 8.

Door; Floor; Rug; Dirt; 10.

Dow's; Micro-tape; Rovana; Saran; 3.

Draperies; Curtains; 4.

Drapery; Upholstery; Thermal radiation; 9. Drapery fabrics; Flame resistant; 6.

Du Pont; Foam; Modified; Neoprene; 4.

Dyeing; Finishing; Nomex; Nylon; 9.

Eastman; Flame resistant products; Fiber; Modacrylic; Verel; 4.

Electric blanket fires; 4.

Electric blankets; Bedwarmers; 4.

Electric blankets; 4.

Electrically-heated blankets; Blankets; British standards: 3.

Equipment; Hospital; Medical facilities; Standards; Construction; 5.

Explosion; Fire; Arson; Asphyxiation; 6. Explosive fabrics; Fabrics; Fire bombs; 4.

F

Fabric: 4.

Fabric; Fire-safe; Teklan; Courtaulds, 9.

Fabric: Fire-safe fabric; 5.

Fabric; Paper; Sheet; 6.

Fabric flammability; Bonding; 3.

Fabric flammability; Flammability; 6.

Fabric flammability; Information Council; 6.

Fabrics: Fibres: 3.

Fabrics; Fibres; Flammability; Garments; 9.

Fabrics; Fibres; Viscose-type fibres; 3.

Fabrics; Fire bombs; Explosive fabrics; 4.

Fabrics; Fires; Nonclothing; 10.

Fabrics; Flame resistant; 5.

Fabrics; Flame resistant; Drapery fabrics; 6.

Fabrics; Flame retardant; Hospital; 5.

Fabrics; Flame retardant; 3.

Fabrics; Flame retardant fabrics; Burns; Conference; 3, 4.

Fabrics; Flameproofing; Law; Standards; Curtain; 8.

Fabrics; Flame-retardant; Hospital; 7.

Fabrics; Flame-retardant fabrics; Flammability; Pile fabrics; Burns; Conference; 5.

Fabrics; Flammability; British Standards Institution; 3.

Fabrics; Flammability; Textile fabrics; 10.

Fabrics; Flammability hazards; 4.

Fabrics: Flammable: 9.

Fabrics; Flammable fabrics; 8, 10.

Fabrics; Flammable fabrics; Act; 8, 9.

Fabrics; Flammable fabrics; Flammable Fabrics Act; U.S.; Act; 9.

Fabrics; Flammable fabrics; Safer textiles; 5.

Fabrics; HF fabrics; Quality; Textures; Colors; 8.

Fabrics; Home furnishing fabrics; 3.

Fabrics; Implementation; Act; Flammable fabrics act; 9.

Fabrics; Nonclothing fabrics; Blankets; 3.

Fabrics; Non-woven; 7.

Fabrics; Paper yarns and fabrics; Textiles; 4.

Fabrics; Thermal transmission; 5.

Fabrics; Upholstery; 10.

Federal Specification DDD-C-001173; Outdoor-indoor; Polypropylene; Carpet; 10.

Federal Specification DDD-C-95; Modacrylic; Nylon; Wool; Rugs; Acrylic; Carpets; 10.

Fiber; Carpet fiber; 9.

Fiber; Flame-resistant; Synthetic fiber; 7.

Fiber; Modacrylic; Verel; Eastman; Flame resistant Products: 4.

Fibers; Manmade fibers; 3.

Fibers: Modacrylic; 6.

Fibers; Modacrylic fibers; 3.

Fibers; Polyvinyl chloride; 5.

Fibers; Polyvinly chloride fibers; Rhovyl; 6.

Fibers; Special fibers; 8.

Fibers; Wool; Blankets; 3.

Fibre; Polychlal; Synthetic fibre; 8.

Fibre; PVC; Teviron; 10. Fibres; Fabrics; 3.

Fibres; Flammability; Garments; Fabrics; 9.

Fibres; Manmade fibres; 7.

Fibres; Synthetic fibres; Carpets; 9. Fibres; Viscose-type fibres; Fabrics; 3.

Fibrolane; Carpets; 4. Film; Plastic; Vinyl; 8.

Films; Tests; Textiles; Fire tests; Flame resistant; 8. Finding; Flammability standard; Rugs; Carpets; 10.

Finish; Textile finish; Fire retardant; 4. Finishes; Fire-retardant finishes; Cotton; 7.

Finishes; Interior material; 7.

Finishing; Nomex; Nylon; Dyeing; 9.

Finishing; Textile; 10.

Fire; 9.

Fire; Acrylic; Carpeting; 5.

Fire; Arson; Asphyxiation; Explosion; 6.

Fire; Foamed polyurethane fire; Polyurethane; Control;

Fire; Hazards; Materials; Plastics; 8.

Fire; Hotel; 6.

Fire; Mattress; Spring mattress; 6.

Fire; Polypropylene; Carpeting; 5.

Fire; Problems; 10.

Fire; Safety; Death; 5.

Fire; Short wave; Therapy; 9.

Fire; Single fatality fire; 9.

Fire bombs; Explosive fabrics; Fabrics; 4.

Fire hazard; Carpet; 6.

Fire hazard; Jute; Tests; 5.

Fire hazards; 6.

Fire hazards; Foam; Polyurethane foam; 5.

Fire resisting; Rayon; 6.

Fire retardancy; Polyester/cotton; Sheeting; Cotton; 3.

Fire retardant; Cotton batting; 5.

Fire retardant; Finish; Textile finish; 4.

Fire retardant; Plastics; 7.

Fire risk; Risk; Safe; 9.

Fire tests; 4.

Fire tests; Flame resistant; Films; Tests; Textiles; 8. Fire tests and requirements; Interior materials; Tests;

Airplane cabin; 7.

Fire trap; 4.

Fire-retardant; Batting; Cotton batting; 10.

Fire-retardant coatings; Latex; Coatings; 7.

Fire-retardant finishes; Cotton; Finishes; 7.

Fires; 9.

Fires; Bedding; Clothing; Deaths; 10.

Fires; Hotel; 6.

Fires; Lethal; Mattress; 9. Fires; Nonclothing; Fabrics; 10.

Fire-safe; Teklan; Courtaulds; Fabric; 9.

Fire-safe fabric; Fabric; 5.

Firesafety; 10.

Flame free; Mattresses; 5.

Flame resistance; Floor coverings; Textile floor cover-

ings; 7.

Flame resistant; Drapery fabrics; Fabrics; 6.

Flame resistant; Fabrics; 5.

Flame resistant; Films; Tests; Textiles; Fire tests; 8.

Flame resistant finish; Batting; Cotton batting; 8.

Flame resistant products; Fiber; Modacrylic; Verel; Eastman: 4.

Flame retardant; Cotton; 6.

Flame retardant; Cotton flote; 7.

Flame retardant; Fabrics; 3.

Flame retardant; Foam polyether; 5. Flame retardant; Hospital; Fabrics; 5.

Flame retardant; Polypropylene; 5.

Flame retardant; Products; Batting; Cotton; 7.

Flame retardant; Research; SURDD; Cotton batting; 7.

Flame retardant; Urethane foams; 6.

Flame retardant; Workshop; Cotton batting; 5.

Flame retardant fabrics; Burns; Conference; Fabrics;

3, 4.

Flame tests; Tests; Wool; 10.

Flameproofed textiles; NFPA; Standard; Textiles; 8.

Flameproofing; Launderability; Linen; 4.

Flameproofing; Law; Standards; Curtain; Fabrics; 8.

Flame-resistant; Mattresses; 7.

Flame-resistant; Performance specs; Textiles; Cotton; 10.

Flame-resistant; Synthetic fiber; Fiber; 7.

Flame-retardant; Foam; Testing; Backing; Carpets; 7.

Flame-retardant; Hospital; Fabrics; 7.

Flame-retardant; Hospital; Linen; Testing; 6.

Flame-retardant; Laminates; Papers; 3.

Flame-retardant fabrics; Flammability; Pile fabrics; Burns; Conference; Fabrics; 5.

Flame-retardant upholstery fabrics; Mattress ticking; 4.

Flammability; British Standards Institution; Fabrics; 3.

Flammability: Conference; 8, 10.

Flammability; Fabric flammability; 6.

Flammability; Garments; Fabrics; Fibres; 9.

Flammability: Interior materials: Smoke characteristic

Flammability; Interior materials; Smoke characteristics; Aircraft; 7.

Flammability; Interior trim materials; Horizontal test method; Test method; 9.

Flammability; Paper; Paperboard; Standard method of test; Test; ASTM; 3, 9.

Flammability; Pile fabrics; Burns; Conference; Fabrics; Flame-retardant fabrics; 5.

Flammability; Problem; 8.

Flammability; Problems; Textiles; 9.

Flammability; Rugs; Standard; Carpets; 10.

Flammability; Safety; Textile; Consumer safety; 5, 10.

Flammability; Standards; 5.

Flammability; Symposium; 7, 9.

Flammability; Symposium; Textiles; 5.

Flammability; Synthetic-fibered; Blankets; 5.

Flammability; Textile fabrics; Fabrics; 10.

Flammability; Textiles; 7.

Flammability hazard; Acrylic carpeting; Carpeting; 5.

Flammability hazards; Fabrics; 4.

Flammability potential; Mattresses; 9.

Flammability section; Tests; ASTM; 8.

Flammability standard; Rugs; Carpets; Finding; 10.

Flammable; Fabrics; 9.

Flammable; Interior furnishings; Law; Wearing apparel; Act; Act to amend; 8.

Flammable carpets; Carpets; 5.

Flammable fabrics; Act; Fabrics; 8, 9.

Flammable fabrics; Fabrics; 8, 10.

Flammable fabrics; Flammable Fabrics Act; U.S.; Act; Fabrics; 9.

Flammable fabrics; Protection; U.S. Code; U.S. Statutes at Large; Act; Amend; 3.

Flammable fabrics; Safer textiles; Fabrics; 5.

Flammable fabrics act; Fabrics; Implementation; Act; 9. Flammable Fabrics Act; U.S.; Act; Fabrics; Flammable

fabrics: 9.

Flexible PVC foam; Trovipor; 5.

Floor; Rug; Dirt; Door; 10.

Floor covering; Carpet; 4.

Floor coverings; Hazard; 10.

Floor coverings; Textile floor coverings; Flame resistance; 7.

Floor coverings; Vinyl; Vinyl floor coverings; 4.

Foam; Modified; Neoprene; Du Pont; 4.

Foam; Polyurethane foam; Fire hazards; 5.

Foam; Testing; Backing; Carpets; Flame-retardant; 7.

Foam plastics; Plastics; 8.

Foam polyether; Flame retardant; 5.

Foam rubber; Mattresses; Cotton mattresses; 9.

Foam rubber: 5.

Foamed polyurethane fire; Polyurethane; Control; Fire; 5.

G

Garments; Fabrics; Fibres; Flammability; 9. Gases; Interior materials; Smoke; Aircraft; 6.

Glass; Textile; 4.

Glass fiber; Mattress; Ticking; 5.

Glass fiber; Textile; Yarns; 7.

Glass-fibres; 6.

Govt.; Tests; USASI; 10.

Great Britain; Regulations; Textile; Flammability; 6.

Hazard; Floor coverings; 10.

Hazards; Materials; Plastics; Fire; 8.

Heat Insulation; Blankets; 9.

Heat resistant; Sewing threads; Threads; 6.

Heating; Ignition; Jute; Tests; 8.

HF fabrics; Quality; Textures; Colors; Fabrics; 8.

Home furnishing fabrics; Fabrics; 3.

Horizontal test method; Test method; Flammability; Interior trim materials; 9.

Hosptial; Bed pad; 6.

Hospital; Fabrics; Flame retardant; 5.

Hospital; Fabrics; Flame-retardant; 7.

Hospital; Linen; Testing; Flame-retardant; 6.

Hospital; Medical facilities; Standards; Construction; Equipment; 5.

Hotbed; 6.

Hotel; Fire; 6.

Hotel; Fires; 6.

Ignition: Bedding: Cigarette: 6. Ignition; Jute; Tests; Heating; 8.

Implementation; Act; Flammable fabrics act; Fabrics; 9.

Indoor-outdoor carpeting; Carpeting; 6.

Indoor/outdoor carpeting; Carpeting; 10. Indoor-outdoor carpets; Weather; Carpets; 8.

Industry; Research; Textile; Applied research; 8.

Information Council; Fabric flammability; 6.

Interior furnishings; Law; Wearing apparel; Act; Act to amend; Flammable; 8.

Interior material; Finishes; 7.

Interior materials; Smoke; Aircraft; Gases; 6.

Interior materials; Smoke characteristics; Aircraft; Flammability; 7.

Interior materials; Tests; Airplane cabin; Fire tests and requirements; 7.

Interior trim materials; Horizontal test method; Test method; Flammability; 9.

Interiors; Textiles; Aircraft interiors; 4.

Jute; Tests; Fire hazard; 5.

Jute; Tests; Heating; Ignition; 8.

L

Laminates; Papers; Flame-retardant; 3.

Latex; Coatings; Fire-retardant coatings; 7.

Launderability; Linen; Flameproofing; 4.

Law; Standards; Curtain; Fabrics; Flameproofing; 8.

Law; Wearing apparel; Act; Act to amend; Flammable;

Interior furnishings; 8.

Lethal; Mattress; Fires; 9.

Linen; Flameproofing; Launderability; 4.

Linen; Testing; Flame-retardant; Hospital; 6.

M

Manmade fibers; Carpet; 7.

Manmade fibers; Fibers; 3.

Man-made fibres; Wool; Carpeting; 4.

Manmade fibres; Fibres; 7.

Materials; Plastics; Fire; Hazards; 8.

Mattress; Fires; Lethal; 9.

Mattress; Spring mattress; Fire; 6.

Mattress; Ticking; Glass fiber; 5.

Mattress ticking; Flame-retardant upholstery fabrics; 4.

Mattresses: 3, 7.

Mattresses; Cotton mattresses; Foam rubber; 9.

Mattresses; Flame free; 5.

Mattresses; Flame-resistant; 7.

Mattresses; Flammability potential; 9.

Mattresses; Springs; Box springs; 7.

Medical facilities; Standards; Construction; Equipment;

Hospital; 5.

Men; Money; Beds; 7.

Micro-tape; Rovana; Saran; Dow's; 3.

Mirror; Sun rays; 9.

Modacrylic; 10.

Modacrylic; Fibers; 6.

Modacrylic; Nylon; Rugs; Wool; Acrylic; Amendment to Federal Specification DDD-C-95; Carpets; 10.

Modacrylic; Nylon; Wool; Rugs; Acrylic; Carpets; Federal Specification DDD-C-95; 10.

Modacrylic; Verel; Eastman; Flame resistant products; Fiber; 4.

Modacrylic fibers; Fibers; 3.

Modified; Neoprene; Du Pont; Foam; 4.

Money; Beds; Men; 7.

N

Neoprene; Du Pont; Foam; Modified; 4.

News; Domestics; 8.

NFPA; Standard; Textiles; Flameproofed textiles; 8.

Nomex; Nylon; Dyeing; Finishing; 9.

Nonclothing; Fabrics; Fires; 10.

Nonclothing fabrics; Blankets; Fabrics; 3.

Non-flammable carpet; Carpet; 8.

Non-flammable carpet backing; Carpet backing; 8.

Non-woven: Fabrics: 7.

Nylon; Dyeing; Finishing; Nomex; 9.

Nylon; Rugs; Wool; Acrylic; Amendment to Federal Specification DDD-C-95; Carpets; Modacrylic; 10.

Nylon; Wool; Rugs; Acrylic; Carpets; Federal Specification DDD-C-95; Modacrylic; 10.

0

Outbreak; Physiotherapists; Warning; 8.

Outdoor-indoor; Polypropylene; Carpet; Federal Specification DDD-C-001173; 10.

P

Paper; Paperboard; Standard method of test; Test; ASTM; Flammability; 3, 9.

Paper; Sheet; Fabric; 6.

Paper yarns and fabrics; Textiles; Fabrics; 4.

Paperboard; Standard method of test; Test; ASTM; Flammability; Paper; 3, 9.

Papers; Flame-retardant; Laminates; 3.

Papers; Textile; 7.

Performance specs; Textiles; Cotton; Flame-resistant;

Performance tests; Tests; Carpets; 8.

Physiotherapists; Warning; Outbreak; 8.

Pile fabrics; Burns; Conference; Fabrics; Flameretardant fabrics; Flammability; 5.

Pillows; 8.

Plastic; Vinyl; Film; 8.

Plastics; Fire; Hazards; Materials; 8.

Plastics; Fire retardant; 7. Plastics; Foam plastics; 8.

Polychlal; Synthetic fibre; Fibre; 8.

Polyester; Acetate; 4.

Polyester; Carpets; 3.

Polyester cotton; Sheeting; Cotton; Fire retardancy; 3. Polypropylene; Carpet; Federal Specification DDD-C-

001173; Outdoor-indoor; 10.

Polypropylene; Carpet fiber; 10.

Polypropylene; Carpeting; Fire; 5. Polypropylene; Flame retardant; 5.

Polypropylene; Tufted carpets; Backing fabrics; Carpets;

Polyurethane; Control; Fire; Foamed Polyurethane fire; 5.

Polyurethane foam; Fire hazards; Foam; 5.

Polyvinyl chloride; Fibers; 5.

Polyvinyl chloride fibers; Rhovyl; Fibers; 6.

Problem; Flammability; 8.

Problems; Fire; 10.

Problems; Textiles; Flammability; 9.

Products; Batting; Cotton; Flame retardant; 8.

Proscenium; Theatre; Curtains; 7.

Protection; U.S. Code; U.S. Statutes at Large; Act;

Amend; Flammable fabrics; 3.

PVC; Teviron; Fibre; 10.

Q

Quality; Textures; Colors; Fabrics; HF fabrics; 8.

R

Rayon; Fire resisting; 6.

Regulations; Textile; Flammability; Great Britain; 6. Research; SURDD; Cotton batting; Flame retardant; 7.

Research; Textile; Applied research; Industry; 8.

Rhovyl; Fibers; Polyvinyl chloride fibers; 6.

Risk; Safe; Fire risk; 9.

Rovana; Saran; Dow's; Micro-tape; 3.

Rug; Dirt; Door; Floor; 10.

Rugs; Acrylic; Carpets; Federal Specification DDD-C-95;

Modacrylic; Nylon; Wool; 10.

Rugs; Carpets; 4, 8.

Rugs; Carpets; Finding; Flammability standard; 10.

Rugs; Standard; Carpets; Flammability; 10.

Rugs; Wool; Acrylic; Amendment to Federal Specification DDD-C-95; Carpets; Modacrylic; Nylon; 10.

S

Sack; Blaze; Build-up; 8.

Safe; Fire risk; Risk; 9.

Safeguarding; Theaters; 5.

Safer textiles; Fabrics; Flammable fabrics; 5.

Safety; Death; Fire; 5.

Safety; Textile; Consumer safety; Flammability; 5, 10.

Saran; Dow's; Micro-tape; Rovana; 3.

Sewing threads; Threads; Heat resistant; 6.

Sheet; Fabric; Paper; 6.

Sheeting; Cotton; Fire retardancy; Polyester/cotton; 3.

Short wave; Therapy; Fire; 9. Simulated leather; Bukflex; 7. Single fatality fire; Fire; 9.

Smoke; Aircraft; Gases; Interior materials; 6.

Smoke characteristics; Aircraft; Flammability; Interior materials: 7.

Special fibers; Fibers; 8. Spraying on safety; 6. Spread of fire; Corridors; 7.

Spring mattress; Fire; Mattress; 6. Springs; Box springs; Mattresses; 7.

Stair carpets; Carpets; 9.

Standard; Carpets; Flammability; Rugs; 10.

Standard; Textiles; Flameproofed textiles; NFPA; 8.

Standard method of test; Test; ASTM; Flammability; Paper; Paperboard; 3, 9.

Standards; Construction; Equipment; Hospital; Medical Facilities; 5.

Standards; Curtain; Fabrics; Flameproofing; Law; 8. Standards; Flammability; 5.

Sun rays; Mirror; 9.

SURDD; Cotton batting; Flame retardant; research; 7.

Symposium; Flammability; 7, 9. Symposium; Textiles; Flammability; 5. Synthetic fiber; Fiber; Flame-resistant; 7.

Synthetic fibre; Fibre; Polychlal; 8. Synthetic fibres; Carpets; Fibres; 9.

Synthetic-fibered; Blankets; Flammability; 5.

T

Teklan; Courtaulds; Fabric; Fire-safe; 9.

Test; ASTM; Flammability; Paper; Paperboard; Standard method of test; 3, 9.

Test; British Standards Institution; Coated fabrics; 3. Test method; Flammability; Interior trim materials; Horizontal test method; 9.

Testing; Backing; Carpets; Flame-retardant; Foam; 7.

Testing; Flame-retardant; Hospital; Linen; 6.

Tests; Airplane cabin; Fire tests and requirements; Interior materials; 7.

Tests; ASTM; Flammability section; 8. Tests; Carpets; Performance tests; 8.

Tests; Fire hazard; Jute; 5.

Tests; Heating; Ignition; Jute; 8.

Tests; Textiles; Fire tests; Flame resistant; Films; 8.

Tests; USASI; Govt; 10. Tests; Wool; Flame tests; 10.

Teviron; Fibre; PVC; 10.

Textile; Applied research; Industry; Research; 8.

Textile; Consumer safety; Flammability; Safety; 5, 10.

Textile; Finishing; 10.

Textile; Flammability; Great Britain; Regulations; 6.

Textile; Glass; 4.

Textile; Papers; 7.

Textile; Yarns; Glass fiber; 7.

Textile fabrics; Fabrics; Flammability; 10. Textile finish; Fire retardant; Finish; 4.

Textile floor coverings; Flame resistance; Floor coverings; 7.

Textiles; Aircraft interiors; Interiors; 4.

Textiles; Cotton; Flame-resistant; Performance specs; 10.

Textiles; Fabrics; Paper yarns and fabrics; 4.

Textiles; Fire tests; Flame resistant; Films; Tests; 8. Textiles; Flameproofed textiles; NFPA; Standard; 8.

Textiles; Flammability; Problems; 9. Textiles; Flammability; Symposium; 5.

Textiles; Flammability; 7.

Textures; Colors; Fabrics; HF fabrics; Quality; 8.

Theaters; Safeguarding; 5.

Theatre; Curtains; Proscenium; 8.

Theatre; Curtains; 8.

Therapy; Fire; Short wave; 9.

Thermal radiation; Drapery; Upholstery; 9.

Thermal transmission; Fabrics; 5.

Threads; Heat resistant; Sewing threads; 6.

Ticking; Glass fiber; Mattress; 5. Trovipor; Flexible PVC foam; 5.

Tufted carpets; Backing fabrics; Carpets; Polypropylene;

U.S.; Act; Fabrics; Flammable fabrics; Flammable Fabrics Act; 9.

U.S. Code; U.S. Statutes at Large; Act; Amend; Flammable fabrics; Protection; 3.

U.S. Statutes at Large; Act; Amend; Flammable fabrics; Protection; U.S. Code; 3.

Underlays; Carpet; 6.

Upholstery; Fabrics; 10. Upholstery; Thermal radiation; Drapery; 9.

Urethane foams; Flame retardant; 6.

USASI; Govt.; Tests; 10.

Verel; Eastman; Flame resistant products; Fiber; Modacrylic; 4.

Vinyl; Film; Plastic; 8.

Vinyl; Vinyl floor coverings; Floor coverings; 4.

Vinyl chloride polymers; 7.

Vinyl floor coverings; Floor coverings; Vinyl; 4.

Viscose-type fibres; Fabrics; fibres; 3.

Warning; Outbreak; Physiotherapists; 8.

Wearing apparel; Act; Act to amend; Flammable; Interior furnishings; Law; 8.

Weather; Carpets; Indoor-outdoor carpets; 8.

Wool; Acrylic; amendment to Federal Specification DDD-C-95; Carpets; Modacrylic; Nylon; Rugs; 10.

Wool; Blankets; Fibers; 3.

Wool; Carpeting; Man-made fibres; 4.

Wool; Flame tests; Tests; 10.

Wool; Rugs; Acrylic; Carpets; Federal Specification DDD-C-95; Modacrylic; Nylon; 10.

Workshop; Cotton batting; Flame retardant; 5.

Yarns; Glass fiber; Textile; 7.

NBS TECHNICAL PUBLICATIONS

PERIODICALS

JOURNAL OF RESEARCH reports National Bureau of Standards research and development in physics, mathematics, chemistry, and engineering. Comprehensive scientific papers give complete details of the work, including laboratory data, experimental procedures, and theoretical and mathematical analyses. Illustrated with photographs, drawings, and charts.

Published in three sections, available separately:

Physics and Chemistry

Papers of interest primarily to scientists working in these fields. This section covers a broad range of physical and chemical research, with major emphasis on standards of physical measurement, fundamental constants, and properties of matter. Issued six times a year. Annual subscription: Domestic, \$9.50; foreign, \$11.75*.

Mathematical Sciences

Studies and compilations designed mainly for the mathematician and theoretical physicist. Topics in mathematical statistics, theory of experiment design, numerical analysis, theoretical physics and chemistry, logical design and programming of computers and computer systems. Short numerical tables. Issued quarterly. Annual subscription: Domestic, \$5.00; foreign, \$6.25*.

Engineering and Instrumentation

Reporting results of interest chiefly to the engineer and the applied scientist. This section includes many of the new developments in instrumentation resulting from the Bureau's work in physical measurement, data processing, and development of test methods. It will also cover some of the work in acoustics, applied mechanics, building research, and cryogenic engineering. Issued quarterly. Annual subscription: Domestic, \$5.00; foreign, \$6.25*.

TECHNICAL NEWS BULLETIN

The best single source of information concerning the Bureau's research, developmental, cooperative and publication activities, this monthly publication is designed for the industry-oriented individual whose daily work involves intimate contact with science and technology—for engineers, chemists, physicists, research managers, product-development managers, and company executives. Annual subscription: Domestic, \$3.00; foreign, \$4.00*.

* Difference in price is due to extra cost of foreign mailing.

Order NBS publications from:

Superintendent of Documents Government Printing Office Washington, D.C. 20402

NONPERIODICALS

Applied Mathematics Series. Mathematical tables, manuals, and studies.

Building Science Series. Research results, test methods, and performance criteria of building materials, components, systems, and structures.

Handbooks. Recommended codes of engineering and industrial practice (including safety codes) developed in cooperation with interested industries, professional organizations, and regulatory bodies.

Special Publications. Proceedings of NBS conferences, bibliographies, annual reports, wall charts, pamphlets, etc.

Monographs. Major contributions to the technical literature on various subjects related to the Bureau's scientific and technical activities.

National Standard Reference Data Series. NSRDS provides quantitive data on the physical and chemical properties of materials, compiled from the world's literature and critically evaluated.

Product Standards. Provide requirements for sizes, types, quality and methods for testing various industrial products. These standards are developed cooperatively with interested Government and industry groups and provide the basis for common understanding of product characteristics for both buyers and sellers. Their use is voluntary.

Technical Notes. This series consists of communications and reports (covering both other agency and NBS-sponsored work) of limited or transitory interest.

Federal Information Processing Standards Publications. This series is the official publication within the Federal Government for information on standards adopted and promulgated under the Public Law 89–306, and Bureau of the Budget Circular A–86 entitled, Standardization of Data Elements and Codes in Data Systems.

CLEARINGHOUSE

The Clearinghouse for Federal Scientific and Technical Information, operated by NBS, supplies unclassified information related to Government-generated science and technology in defense, space, atomic energy, and other national programs. For further information on Clearinghouse services, write:

Clearinghouse U.S. Department of Commerce Springfield, Virginia 22151

U.S. DEPARTMENT OF COMMERCE WASHINGTON, D.C. 20230

OFFICIAL BUSINESS



POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE